

CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. – 69. (Canceled)

70. (New) A method comprising:

generating, at a video server, a frame index for a video stream, the frame index comprising a plurality of frame index entries corresponding to a plurality of frames of the video stream;

receiving, at the video server, a first presentation request for the video stream from a display client via a network, the video server remote to the display client;

determining, at the video server, a first subset of frames of the plurality of frames and a first presentation sequence for the first subset of frames based on the frame index in response to the first presentation request; and

transmitting the first subset of frames having the first presentation sequence to the display client via the network.

71. (New) The method of claim 70, wherein each frame index entry of the plurality of frame index entries comprises an identifier of a frame type of a corresponding frame.

72. (New) The method of claim 71, wherein each frame index entry further comprises an offset value identifying a starting location of data representative of the corresponding frame within a file representative of the video stream and a size value representative of a size of the data representative of the corresponding frame.

73. (New) The method of claim 70, wherein generating the frame index comprises:

receiving, at the video server, an encoded data stream representative of the video stream;

processing, at the video server, the encoded data stream to identify each frame of the video stream; and

generating, at the video server, a frame index entry of the frame index for each frame identified during processing; and
storing the encoded data stream.

74. (New) The method of claim 70, wherein generating the frame index comprises:
receiving, at the video server, an unencoded data stream representative of the video stream;
encoding, at the video server, the unencoded data stream to generate an encoded data stream representative of the video stream; and
generating, at the video server, a frame index entry of the frame index for each identified frame of the encoded video stream; and
storing the encoded video stream.

75. (New) The method of claim 70, further comprising:
receiving, at the video server, a second presentation request for the video stream from the display client via the network;
determining, at the video server, a second subset of frames of the plurality of frames and a second presentation sequence for the second subset of frames based on the frame index in response to the second presentation request; and
transmitting the second subset of frames having the second presentation sequence to the display client via the network.

76. (New) The method of claim 75, wherein the first presentation request comprises a request for a fast forward playback and the second presentation request comprises a request for a fast reverse playback.

77. (New) The method of claim 75, wherein the first presentation request comprises a request for a fast forward playback at a first rate and the second presentation request comprises a request for a fast forward playback at a second rate, the second rate greater than the first rate.

78. (New) The method of claim 77, wherein the first subset of the plurality of frames includes only intra-coded frames and forward-predicted frames and the second subset of the plurality of frames includes only intra-coded frames.

79. (New) The method of claim 70, further comprising:
receiving, at the video server, a second presentation request for the video stream from the display client via the network, the second presentation request comprising a presentation request for a normal playback of the video stream;
determining, at the video server, a second presentation sequence for the plurality of frames based on the frame index in response to the second presentation request;
and
transmitting at least a portion of the plurality of frames having the second presentation sequence to the display client via the network.

80. (New) The method of claim 79, wherein the first presentation request comprises one of a request for a fast-forward playback or a request for a fast-reverse playback.

81. (New) The method of claim 70, further comprising:
receiving, at the display client, user input indicating a requested playback of the video stream, the requested playback comprising one of a fast-forward playback or a fast-reverse playback;
generating, at the display client, the first presentation request based on the user input;
transmitting the first presentation request from the display client to the video server via the network;
receiving, at the display client, the first subset of frames having the first presentation sequence; and
processing, at the display client, the first subset of frames for display in a display sequence based on the first presentation sequence.

82. (New) The method of claim 81, wherein the first subset of frames is represented by encoded data and processing the first subset of frames comprises decoding the encoded data.

83. (New) The method of claim 70, further comprising:
for each frame of at least a portion of the first subset, modifying a presentation time stamp of the frame based on the first presentation sequence prior to transmitting the frame to the display client.
84. (New) A method comprising:
receiving, at a display client, user input indicating a requested playback of a video stream having a plurality of frames, the requested playback comprising one of a fast-forward playback or a fast-reverse playback;
generating, at the display client, a presentation request based on the user input;
transmitting the presentation request from the display client to a video server via a network, the video server remote the display client;
receiving, at the display client, a subset of the plurality of frames having a presentation sequence based on the requested playback from the video server via the network;
and
processing, at the display client, the subset of the plurality of frames for display in a display sequence based on the presentation sequence.
85. (New) The method of claim 84, wherein the first subset of frames is represented by encoded data and processing the first subset of frames comprises decoding the encoded data.
86. (New) The method of claim 84, wherein the subset of the plurality of frames includes only intra-coded frames and forward-predicted frames.
87. (New) The method of claim 84, wherein the subset of the plurality of frames includes only intra-coded frames.
88. (New) A system comprising:
a video server coupled to a network, the video server comprising:
a recording module to generate a frame index for a video stream, the frame index comprising a plurality of frame index entries corresponding to a plurality of frames of the video stream;

an interface coupled to the network, the interface to receive a first presentation request for the video stream from a display client via the network, the video server remote to the display client;

a presentation control to determine a first subset of frames of the plurality of frames and a first presentation sequence for the first subset of frames based on the frame index in response to the first presentation request; and

the interface further to transmit the first subset of frames having the first presentation sequence to the display client via the network.

89. (New) The system of claim 88, wherein each frame index entry of the plurality of frame index entries comprises an identifier of a frame type of a corresponding frame.

90. (New) The system of claim 89, wherein each frame index entry further comprises an offset value identifying a starting location of data representative of the corresponding frame within a file representative of the video stream and a size value representative of a size of the data representative of the corresponding frame.

91. (New) The system of claim 88, wherein the recording module is to generate the frame index by:

receiving an encoded data stream representative of the video stream;

processing the encoded data stream to identify each frame of the video stream; and

generating a frame index entry of the frame index for each identified frame; and

storing the encoded data stream at the video server.

92. (New) The system of claim 88, wherein the recording module is to generate the frame index by:

receiving an unencoded data stream representative of the video stream;

encoding the unencoded data stream to generate an encoded data stream representative of the video stream; and

generating a frame index entry of the frame index for each identified frame of the encoded video stream; and

storing the encoded video stream at the video server.

93. (New) The system of claim 88, further comprising:
receiving, at the video server, a second presentation request for the video stream from the display client via the network;
determining, at the video server, a second subset of frames of the plurality of frames and a second presentation sequence for the second subset of frames based on the frame index in response to the second presentation request; and
transmitting the second subset of frames having the second presentation sequence to the display client via the network.

94. (New) The system of claim 93, wherein the first presentation request comprises a request for a fast forward playback and the second presentation request comprises a request for a fast reverse playback.

95. (New) The system of claim 93, wherein the first presentation request comprises a request for a fast forward playback at a first rate and the second presentation request comprises a request for a fast forward playback at a second rate, the second rate greater than the first rate.

96. (New) The system of claim 95, wherein the first subset of the plurality of frames includes only intra-coded frames and forward-predicted frames and the second subset of the plurality of frames includes only intra-coded frames.

97. (New) The system of claim 88, wherein
the interface further is to receive a second presentation request for the video stream from the display client via the network, the second presentation request comprising a presentation request for a normal playback of the video stream;
the presentation control further is to determine a second presentation sequence for the plurality of frames based on the frame index in response to the second presentation request; and
the interface further is to transmit at least a portion of the plurality of frames having the second presentation sequence to the display client via the network.

98. (New) The system of claim 97, wherein the first presentation request comprises one of a request for a fast-forward playback or a request for a fast-reverse playback.

99. (New) The system of claim 88, further comprising:

a display client coupled to the network, the display client to:

receive user input indicating a requested playback of the video stream, the requested playback comprising one of a fast-forward playback or a fast-reverse playback;

generate the first presentation request based on the user input;

transmit the first presentation request to the video server via the network;

receive the first subset of frames having the first presentation sequence; and

process the first subset of frames for display in a display sequence based on the first presentation sequence.

100. (New) The system of claim 99, wherein the first subset of frames is represented by encoded data and processing the first subset of frames comprises decoding the encoded data.

101. (New) The system of claim 88, wherein:

the presentation control is further to, for each frame of at least a portion of the first subset, modify a presentation time stamp of the frame based on the first presentation sequence prior to transmission of the frame to the display client.